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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,720	12/02/2003	Roy M. Zeighami	200300353-1	4318

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EXAMINER

RUTLAND WALLIS, MICHAEL

ART UNIT	PAPER NUMBER
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2835

DATE MAILED: 04/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/725,720

Applicant(s)

ZEIGHAMI ET AL.

Examiner

Michael Rutland-Wallis

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS; WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 02 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "a latching component" and "a latching circuit" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3, 4-6, 12 and 13-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claims 3 and 12 the limitation "said connection interface is disposed within said electronic load." This is unclear as the load is shown and described in the drawings and specification as a separate component.

With respect to claims 4-6 and 13-15 the limitation "a latching component" and "a latching circuit" are not clearly defined in the specification or seen in the drawings, therefore while applicant refers to latching systems on page 6 of the specification where it is stated "latching systems are used to control the voltage drop across the isolation diodes". Therefore in order to further prosecute the merits of the instant application the term latching component and latching circuit will be interpreted as any circuit to control the voltage drop across the isolation diodes.

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The rejections below to claims 3, 4-6 and 13-15 are as best can be understood by the examiner in view of the 112 rejections cited above.

Claims 1, 4, 7-8, 10 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henze (U.S. Pat. No. 4,924,170) in view of Chesavage (U.S. Pat. No. 5,834,925)

With respect to claims 1, 7-8 and 12 Henze teaches a power supply system (Fig. 5) comprising: a plurality of cascading power units (PSM 1-PSM n) arranged in parallel; a connection interface (items 30 and 32 34 and 36) between said plurality of cascading power units and an electronic load; and wherein each one of said plurality of cascading power units has a maximum effective output voltage greater than a next (column 2 lines 14-26) one of said plurality. While Henze is silent on the use of circuitry to prevent current from other power units from entering another powering unit. The use of barrier or isolation diode circuitry is well know as seen in Chesavage who teaches a similar system to that of Henze. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Henze to include the use of a isolation diode or other such circuitry in order to protect the supplies from damage in fact this is not the present operation of Henze.

With respect to claim 3 Henze teaches a connection interface is disposed within said load.

With respect to claims 4, 10 and 13 Chesavage teaches a latch circuit (diode) operable to limit the voltage to that of the power unit next to it. The turning on the diode will latch the voltage to that of the supply next to it during power droop.

With respect to claims 5, 11 and 14 teaches receiving a signal to deactivate said limiting; and deactivating said limiting. Henze as modified by Chesavage teach if the voltage of the supply with the higher voltage increases or return from a power droop state the latching component i.e. diode would cutoff deactivating the latching component.

Claims 2 and 9 rejected under 35 U.S.C. 103(a) as being unpatentable over Henze (U.S. Pat. No. 4,924,170) in view of Chesavage (U.S. Pat. No. 5,834,925) as applied to claims 1 and 7 above, and further in view of Wasaki (U.S. Pub. No. 20030095036). Henze as modified by Chesavage above teach the device of claims 1 and 7 but are silent on selection impedance within said connection interface for setting said maximum effective output voltage for each of said plurality of cascading power units. Wasaki teaches the use of impedance matching circuits (items 20), the matching and selection of impedance values to deliver optimal power is well know in power distribution therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Henze as modified by Chesavage to further include the use of impedance selection to maximize the power output to the load.

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Claims 6 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henze (U.S. Pat. No. 4,924,170) in view of Chesavage (U.S. Pat. No. 5,834,925) as applied to claims 1 and 7 above, and further in view of Rock (U.S. Pat. No. 6,121,693)

With respect to claims 6 and 15 Henze as modified by Chesavage do not teach the use of a timer. The use of timer to activate and deactivate additional supplies is seen for example in Rock where Rock teaches the use of memory and timing elements (col. 5 Line 30-67). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Henze as modified by Chesavage to include timing control to enable and temporary adjustment to the power distribution system.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Rutland-Wallis whose telephone number is 571-272-5921. The examiner can normally be reached on Monday-Thursday 7:30AM-6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D. Feild can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MRW



LYNN D. FEILD
PRIMARY EXAMINER